

WHAT IS CLAIMED IS:

1. An image forming apparatus comprising:

an image forming member provided to form an image; and

5 pulsewidth modulation means for generating a pulsewidth modulation signal in accordance with an image signal,

wherein said pulsewidth modulation means generates the pulsewidth modulation signal by counting
10 pulses of a first clock signal in accordance with said image signal,

and wherein the first clock signal is generated based on a selection on which pulses corresponding to pulses of a second clock signal are outputted.

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2. The image forming apparatus according to claim 1, wherein the pulses of the second clock signal have a regular frequency.

20 3. The image forming apparatus according to claim 1, wherein the selection determines whether or not the pulses of the second clock signal are outputted as the pulses of the first clock signal.

25 4. The image forming apparatus according to claim 1, wherein the selection is determined by a count value

of the pulses of the second clock signal.

5. The image forming apparatus according to claim 1,
further comprising storage means for storing
5 information for the selection on whether or not pulses
corresponding to the pulses of said second clock
signal are outputted.

6. The image forming apparatus according to claim 1,
10 further comprising:

a counter provided to count the pulses of the
second clock signal; and

selection means for selecting whether or not
pulses corresponding to the pulses of the second clock
15 signal are outputted, in accordance with output from
said counter.

7. The image forming apparatus according to claim 6,
wherein said selection means has a decoder which
20 decodes the output of said counter.

8. The image forming apparatus according to claim 6,
wherein said selection means has a memory for
inputting an output from said counter as an address of
25 the memory, and for outputting information on whether
or not pulses corresponding to the pulses of said

second clock signal are outputted.

9. An image forming apparatus comprising:
an image forming member provided to form an
image; and

pulsewidth modulation means for generating a pulsewidth modulation signal in accordance with an image signal,

wherein said pulsewidth modulation means
10 generates the pulsewidth modulation signal by counting
pulses of a first clock signal in accordance with said
image signal,

and wherein the first clock signal is generated
by reading data from storage means which stores output
15 pattern data of the first clock signal.

10. The image forming apparatus according to claim 9,
wherein the data is stored as digital data in said
storage means.

11. The image forming apparatus according to claim 9,
wherein said storage means stores information on
whether or not pulses corresponding to the pulses of a
second clock signal are outputted,

25 and wherein the information is read in accordance
with a count value of the pulses of the second clock

signal.

12. The image forming apparatus according to claim 9,
further comprising output means for loading data
5 corresponding to the output pattern of the first clock
signal from said storage means and sequentially
outputting the data.

13. The image forming apparatus according to claim 12,
10 wherein said output means has a plurality of flip-
flops which latch the data corresponding to the output
pattern of the first clock signal, and said flip-flops,
being serially connected, sequentially output the data
corresponding to the output pattern of the first clock
15 signal.

14. An image forming apparatus comprising:

an image forming member provided to form an
image; and

20 pulsewidth modulation means for generating a
pulsewidth modulation signal in accordance with an
image signal,

wherein said pulsewidth modulation means
generates the pulsewidth modulation signal by counting
25 pulses of a first clock signal in accordance with said
image signal,

and wherein said first clock signal is generated by controlling an oscillation frequency of an oscillation unit which varies the oscillation frequency based on a control signal.

18. The image forming apparatus according to claim 1,

wherein said first clock signal has an output pattern to release or mitigate γ correction status of the input image signal.

5 19. The image forming apparatus according to claim 1, wherein said image forming member comprises a plurality of devices for forming an image by light emission, arranged in a matrix.

10 20. The image forming apparatus according to claim 19, wherein in said plurality of devices arranged in the matrix, an device to be driven is sequentially selected by each row, and the device in the selected row is controlled by said pulsewidth modulation signal.

15 21. The image forming apparatus according to claim 19, wherein said device causes a light emitting member to emit light by emitting electrons.

20 22. The image forming apparatus according to claim 1, wherein said image forming member forms an image by causing a light emitting member to emit light by emitting electrons emitted from an electron emission device.

25 23. The image forming apparatus according to claim 22,

wherein said device is a surface-conduction type
emission device.

24. The image forming apparatus according to claim 22,
5 wherein said device is an FE (Field Emission) type
electron emission device.

25. The image forming apparatus according to claim 22,
wherein said device is an MIM (Metal/Insulator/Metal)
10 type electron emission device.

26. An electron beam apparatus comprising:
an electron beam source; and
pulsewidth modulation means for generating a
15 pulsewidth modulation signal as a modulation signal to
control electron emission,

wherein said pulsewidth modulation means
generates the pulsewidth modulation signal by counting
pulses of a first clock signal in accordance with an
20 image signal,

and wherein a pattern of said first clock signal
is generated based on a selection on whether or not
pulses corresponding to pulses of a second clock
signal are outputted.

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27. An electron beam apparatus comprising:

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29. A modulation circuit which generates a pulsewidth modulation signal,

wherein said pulsewidth modulation signal being generated by counting pulses of a first clock signal
5 in accordance with an image signal,

wherein a pattern of said first clock signal being generated by selecting whether or not pulses corresponding to pulses of a second clock signal are outputted.
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30. A modulation circuit which generates a pulsewidth modulation signal,

wherein said pulsewidth modulation signal being generated by counting pulses of a first clock signal
15 in accordance with an image signal,

wherein said first clock signal being generated by reading data from storage means which stores data of an output pattern of the first clock.

20 31. A modulation circuit which generates a pulsewidth modulation signal,

wherein said pulsewidth modulation signal being generated by counting pulses of a first clock signal in accordance with an image signal,

25 and wherein said first clock signal being generated by controlling an oscillation frequency of

an oscillation unit which varies the oscillation frequency by a control signal.

32. A method for driving an image forming apparatus
5 comprising an image forming member which forms an image and pulsewidth modulation means for generating a pulsewidth modulation signal in accordance with an image signal, said method comprising the steps of:

generating said pulsewidth modulation signal by
10 counting pulses of a first clock signal in accordance with said image signal,

wherein an output pattern of said first clock signal is generated by selecting whether or not pulses corresponding to pulses of a second clock signal are
15 outputted.

33. A method for driving an image forming apparatus comprising an image forming member which forms an image and pulsewidth modulation means for generating a
20 pulsewidth modulation signal in accordance with an image signal, said method comprising the steps of:

generating said pulsewidth modulation signal by counting pulses of a first clock signal in accordance with said image signal,

25 wherein said first clock signal is generated by reading data from storage means which stores the data

of an output pattern of the first clock signal .

34. A method for driving an image forming apparatus comprising an image forming member which forms an

5 image and pulsewidth modulation means for generating a pulsewidth modulation signal in accordance with an image signal, said method comprising the steps of:

generating said pulsewidth modulation signal by counting pulses of a first clock signal in accordance
10 with the image signal,

wherein the first clock signal is generated by controlling an oscillation frequency of an oscillation unit which varies the oscillation frequency by a control signal.

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